

Proposed Amended Rule 1178 Further Reductions of VOC Emissions from Storage Tanks at Petroleum Facilities

Public Workshop
South Coast AQMD
September 3, 2020
10 am

Instructions for Remote Access

Join Zoom Meeting - from PC or Laptop:

<https://scaqmd.zoom.us/j/92802478389>

Meeting ID: 928 0247 8389 / passcode 776186

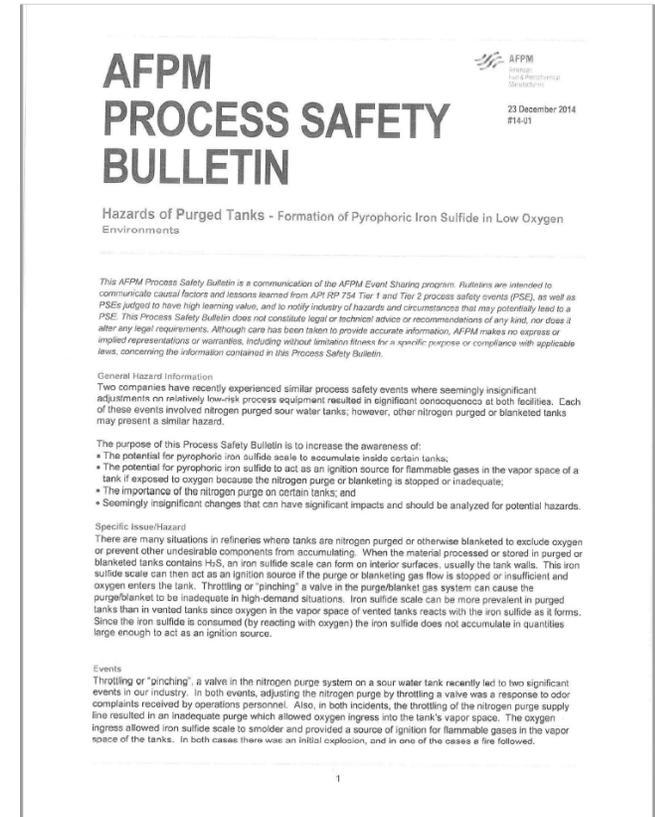
To participate by phone or audio by phone dial:

+1 669 900 6833 US (San Jose)

Passcode: 92802478389#

Purpose of Proposed Amended Rule 1178

- ❖ This proposed amendment will address a safety issue in doming tanks that store waste water
 - Prevent accumulation of pyrophoric (ignitable) material that may occur if waste water tanks are domed
- ❖ A future amendment to Rule 1178 is planned as committed to in the Community Emission Reduction Plan (CERP) for Wilmington, Carson, and West Long Beach
 - Staff will be initiating Working Group Meetings for this future amendment in early 2021



Regulatory History



- ❖ December 2001 – Rule 1178 adopted with the purpose of further reducing VOC emissions from storage tanks at petroleum facilities
- ❖ April 2006 Amendment
 - Allowed use of alternatives to a slotted membrane fabric drain cover for an external floating roof
 - Clarified definitions
 - Specified guidelines for the distances which internal floating roof tank seals were allowed to be extended into the liquid and outside the liquid stored
- ❖ April 2018 Amendment
 - Incorporated a flexible enclosure system as VOC emission reduction option per the 2000 U.S. EPA Storage Tank Emission Reduction Partnership Program (STERPP) Agreement
 - Clarified inspection procedures and entries to compliance report forms to include the flexible enclosure system option

Applicability and Requirements

Applicability

- ❖ Applies to any petroleum facility with annual VOC emissions greater than 20 tons

Doming requirements for external floating roof tanks

- ❖ Doming required for tanks storing organic liquids with true vapor pressure greater than 3 psia in 2000 Annual Emissions Report (AER)
- ❖ Phase I – Installation of domes by December 31, 2008
- ❖ Phase II – Subsequent identification of tanks storing organic material with true vapor pressure > 3 psia as reported on facility's AER dome with two years of identification
 - Compliance determined based on monthly-averaged true vapor pressure



Additional Details for Phase II Tanks

- ❖ If identified before December 31, 2008, then operator must either:
 - Install a dome before January 1, 2010; or
 - In lieu of installing a dome, accept a permit condition limiting true vapor pressure to less than 3 psia
 - Option to accept permit condition limiting true vapor pressure to less than 3 psia expired in 2008

- ❖ If the true vapor pressure equal to or greater than 3 psia after 2008, only current option is to dome tank



Current Issue

- ❖ In 2019, two tanks in wastewater service identified with a true vapor pressure greater than 3 psia which now require Phase II compliance
- ❖ Reported tanks store water containing hydrogen sulfide contaminants
- ❖ Hydrogen sulfide may form pyrophoric substances if an external floating roof tank is enclosed
- ❖ Pyrophoric material can self-ignite leading to fire and damage to a tank and subsequent community exposure



Proposal

Re-instate option to permit waste stream tanks to limit true vapor pressure in lieu of doming requirement

- ❖ Provision would be limited to waste stream tanks where pyrophoric material may form
- ❖ Permit condition would limit true vapor pressure to below 3 psia as had been allowed before the end of Phase I

Proposal

- ❖ Requirements in current rule for accepting permit conditions before end of Phase I contained in subparagraph (d)(2)(C)
- ❖ PAR 1178 would separate the existing requirement and include the proposed requirement to accept a permit condition where doming would create a safety hazard

Proposed Rule Language

In lieu of complying with doming requirements:

Previous clause
(d)(2)(C) renamed
to (d)(2)(C)(i)

Existing requirement for operators to accept permit limit of 3 psia true vapor pressure by December 31, 2008



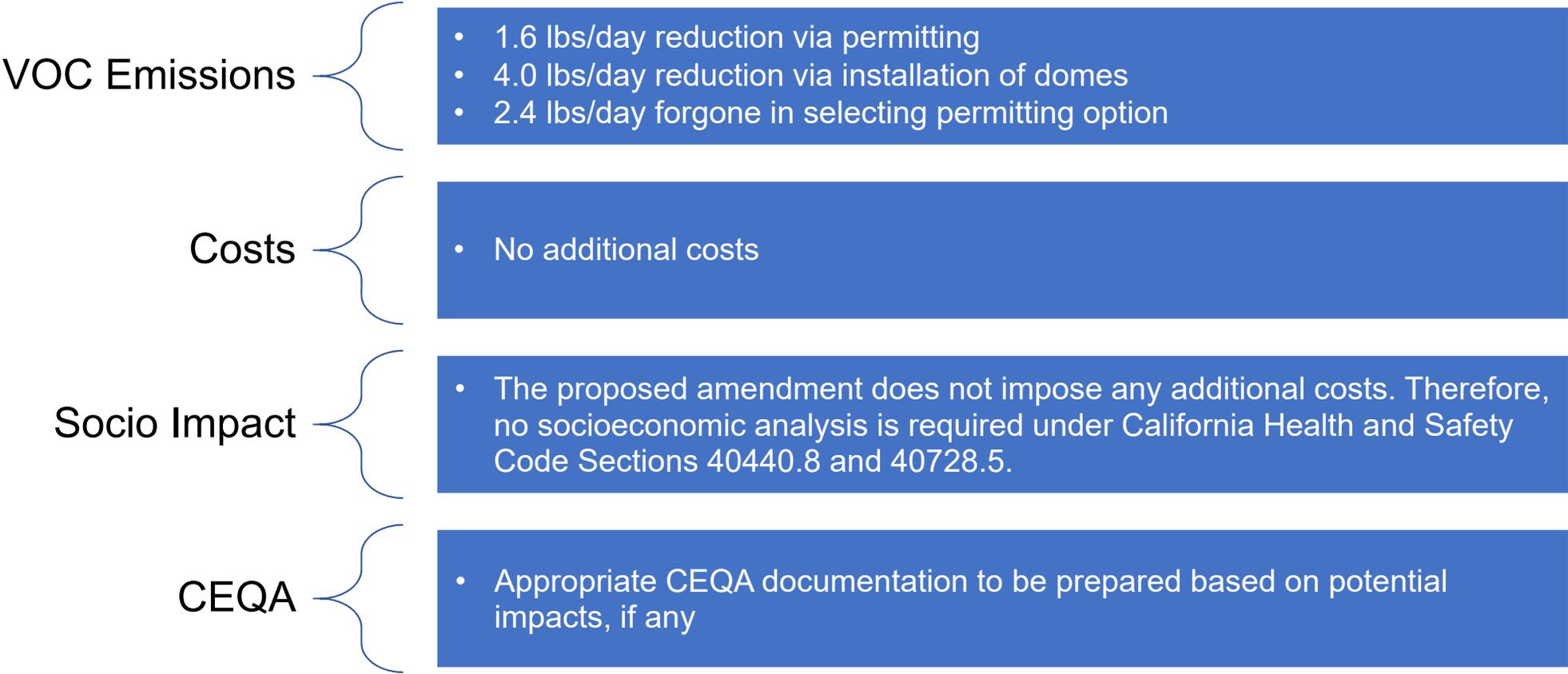
Re-instate permit option in limited case

New clause:
(d)(2)(C)(ii)

New provision for operator of a waste water tank subject to Phase II, where a domed roof may create a hazard

Can accept permit limit of 3 psia true vapor pressure

Impact Assessments



Next Steps

- ❖ Comments Due:
September 17, 2020
- ❖ Stationary Source Committee
September 18, 2020
- ❖ Set Hearing
October 2, 2020
- ❖ Governing Board Meeting
November 6, 2020

Questions



Contacts



Rodolfo Chacon
Air Quality Specialist
rchacon@aqmd.gov
909-396-2726

Kevin Orellana
Program Supervisor
korellana@aqmd.gov
909-396-3492

Mike Morris
Planning and Rules Manager
mmorris@aqmd.gov
909-396-3282